

Observations of Occultations of Stars by the Moon and of Phenomena of Jupiter's Satellites, made at the Royal Observatory, Greenwich, in the year 1890.

(Communicated by the Astronomer Royal.)

Occultations of Stars by the Moon.

Day.	Phenomenon.	Telescope.	Power.	Moon's Limb.	Mean Solar Time of Observation. h m s	Observer.
1890 Jan. 15 (a)	Reapp. σ^1 Libræ	Simms' No. 1	75	Dark	16 31 6.25	A. M.
Feb. 7 (b)	Disapp. ν Virginis	Lassell Refl.	280	Bright	11 6 7.08	L.
7 (c)	" ν Virginis	E. Equat.	140	"	11 6 6.12	H.
7	" ν Virginis	Altaz.	100	"	11 6 3.41	S. D.
7	Reapp. ν Virginis	"	100	Dark	12 19 59.83	L.
7	" ν Virginis	E. Equat.	140	"	12 19 59.92	H.
Mar. 29 (d)	Disapp. γ Cancri	Altaz.	100	"	13 10 18.63	T.
Apr. 7 (e)	Reapp. ζ^1 Libræ	"	100	"	15 28 9.84	J. P.
7	" ζ^1 Libræ	E. Equat.	70	"	15 28 9.07	W. R.
30	Disapp. ν Virginis	E. Equat.	140	"	10 58 12.83	H.
30	" ν Virginis	Altaz.	100	"	10 58 12.98	S. D.
30	Reapp. ν Virginis	"	100	Bright	11 48 22.97	S. D.
May 3	Disapp. η^5 Virginis	E. Equat.	140	Dark	8 50 23.13	A. D.
3	" κ Virginis	Altaz.	100	"	13 7 31.36	H. T.
3	" κ Virginis	E. Equat.	140	"	13 7 31.36	A. D.
June 2 (f)	" ω Ophiuchi	Altaz.	100	Bright	10 5 51.28	H. T.
2 (g)	" ω Ophiuchi	E. Equat.	210	"	10 5 54.96	A. D.

Day.	Phenomenon.	Telescope.	Power.	Moon's Limb.	Mean Solar Time of Observation. h m s	Observer.
1890 June 29 (i)	Disapp. β^2 Scorpil	E. Equat.	60	Bright	9 59 37.12	L.
29	Reapp. β^2 Scorpil	"	60	Dark	11 12 1.88	L.
29	" β^1 Scorpil	"	60	"	11 12 3.98	L.
Sept. 6	" Piazzl v. 192	"	70	"	12 41 58.48	W. R.
20	Disapp. 24 Ophiuchi	Altaz.	100	"	7 54 31.36	J. P.
20	" 24 Ophiuchi	E. Equat.	70	"	7 54 31.14	A. D.
27 (i)	" 30 Piscium	Altaz.	100	"	10 36 9.98	H. F.
27 (k)	" 33 Piscium	E. Equat.	140	"	12 30 54.72	H.
Oct. 27 (l)	" ξ^1 Ceti	Lassell Refl.	280	"	7 22 33.00	H. T.
27	" ξ^1 Ceti	E. Equat.	140	"	7 22 33.64	H.
27 (m)	" ξ^1 Ceti	Altaz.	100	"	7 22 32.74	S. D.
27 (n)	Reapp. ξ^1 Ceti	E. Equat.	140	Bright	8 21 46.19	H.
27 (o)	" ξ^1 Ceti	Altaz.	100	"	8 21 (56.57)	S. D.

Notes.

- (a) Cloudy.

(c) Star appeared to *glide* behind Moon's limb ; the disappearance had a perceptible duration ; the time of last contact was noted.

(d) Star faint.

(f) Clouds began to sweep over about 4" before time of observation, but it is believed that the true occultation was observed, the star being close to the Moon's limb.
- (g) Clouds passing.

(k) Moon's limb nearly full. Star did not seem to disappear instantaneously, but gradually faded away.

(l) Star disappeared into Moon's rough limb.

(n) Observation not considered good ; perhaps late.
- (i) Cloudy ; doubtful whether occulted by Moon or cloud.

(m) Star very faint.

(o) Star some distance from Moon's limb when first seen.

Phenomena of Jupiter's Satellites.

Day.	Satellite.	Phenomenon.	Telescope.	Power.	Mean Solar Time of Observation. h m s	Mean Solar Time of N.A. h m s	Observer.
1890 June 19	III.	Ecl. R. First seen	E. Equat.	210	12 43 57	12 44 19	H. T.
	III.	Occ. D. First contact	"	"	12 51 31	"	"
	III.	Last seen	"	"	12 55 45	"	"
July 19 (a)	II.	Tr. Ing. First contact	"	"	12 12 40	12 14	W. R.
	II.	Bisection	"	"	12 13 58		"
	II.	Last seen	"	"	12 16 6		"
	I.	Tr. Ing. First contact	Altaz.	100	9 17 29		L.
	I.	Last seen	"	"	9 22 35		"
26	III.	Tr. Egr. First seen	E. Equat.	140	11 35 50	11 41	"
26	III.	Bisection	"	"	11 37 53		"
26	III.	Last contact	"	"	11 40 14		"
Aug. 1	II.	Occ. R. First seen	Altaz.	100	11 36 4	11 37	S. D.
	III.	Occ. D. First contact	E. Equat.	60	8 52 51	8 55	T.
	III.	Last seen	"	"	8 57 6		"
	III.	First seen	"	210	12 44 48	12 45 54	T.
	III.	First seen	Altaz.	100	12 44 2		H. F.
I.	III.	Full brightness	"	"	12 46 11	13 56	"
	I.	Occ. D. First contact	E. Equat.	210	13 54 11		T.
	I.	Last seen	"	"	13 57 46		"